

CATIA V5 PLM EXPRESS - EQUIPMENT AND SYSTEMS ENGINEERING PORTFOLIO

Equipment and Systems Engineering

Define equipment and visualize a complete virtual product, reflecting both mechanical components and other systems such as fluid and electrical. Experience realistic simulation in an integrated environment to reduce design time and increase the quality of large scale systems.

Piping Schematics to Design - PIE

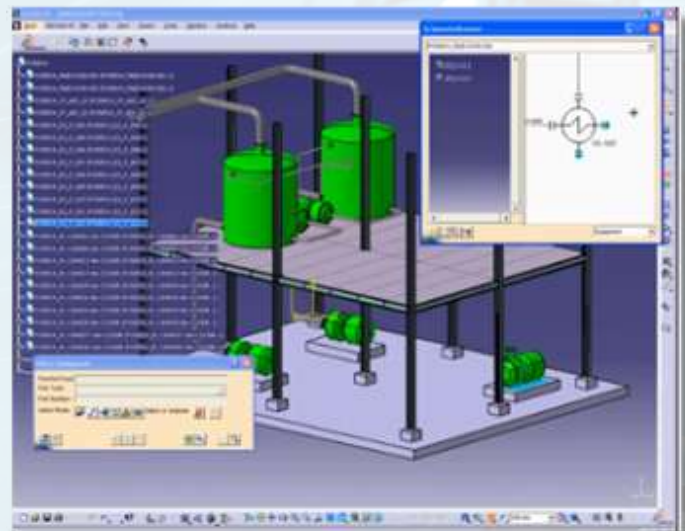
Piping Schematic to Design product enables the user to design and manage logical lines of piping systems using standards and specifications according to industry usage. Enabling Creation of component catalogues with multi-representation, attributes and design rules. The system engineer will create intelligent schematics piping diagrams.

Fully integrated, the piping designer builds the 3D design directly from 2D diagrams (2D/3D driven). These intelligent diagrams and 3D design capability enables users to create and validate their designs with respect to company know-how.

This product covers project engineering from basic design up to detailed design. Piping versus Tubing: Piping standard components such as valves and flanges are welded or bolted with straight pipes.

Module Breakdown:

- **PIP** - Piping Design 2
- **PID** - Piping and Instrumentation Diagram 2
- **SDI** - Systems Diagrams 2



HVAC Schematic to Design - HVE

HVAC - Heat, Ventilation and Air Conditioning.

HVAC Schematic to Design product enables the user to design and manage logical lines of HVAC systems using standards and specifications according to industry usage. It enables the creation of component catalogues with multi representation, attributes and design rules. The system engineer creates intelligent schematics and HVAC Diagrams. Fully integrated, the designer builds the 3D design directly from 2D diagrams (2D/3D driven). These intelligent diagrams and 3D design capability enable users to create and validate designs. This product covers project engineering from basic design up to detailed design.

Module Breakdown:

- **HVA** - HVAC Design 2
- **HV2** - HVAC Diagrams 2
- **SDI** - Systems Diagrams 2



Tubing Schematic Design - TUE

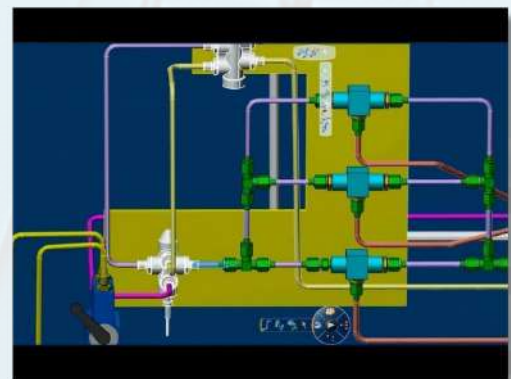
Tubing Schematic to Design product enables the designer to design and manage logical lines of tubing systems using standards and specifications according to industry usage. It enables the creation of component catalogues with multi-representation, attributes and design rules. The system engineer creates intelligent schematics tubing diagrams.

Fully integrated, the tubing designer builds the 3D design directly from 2D diagrams (2D/3D driven). These intelligent diagrams and 3D design capability enable users to create and validate their designs with respect to company know-how.

This product covers project engineering from basic design up to detailed design.

Module Breakdown:

- Tubing Design 2
- Systems Diagrams 2
- Tubing Diagrams 2



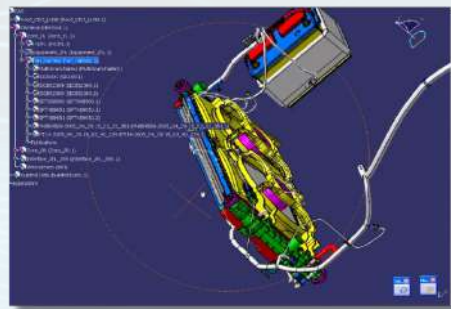
Electrical 3D Design - EDE

Electrical 3D Design & Documentation provides a dedicated electro-mechanical end-to-end solution for designing and documenting electrical modules in all industries that design electric, electronic and electro-mechanic components. It reduces time and cost for creating electrical modules directly in the Digital Mock-Up, avoids interferences and create up-to-date manufacturing documentation.

It addresses also suppliers who design independent electrical modules that interface with a global electrical digital mockup, especially when OEM's are equipped with CATIA V5. (End-to-end auto or aerospace large wire harness design is addressed with CATIA – Electrical Wire Harness Design and CATIA Electrical Wire Harness Flattening)

Module Breakdown:

- Electrical 3D Design & Documentation 1



Flexible PCB Design - CBE

Flexible PCB Design enables modeling of a flexible circuit board within a virtual mock-up and facilitates collaboration with electronic CAD systems.

Module Breakdown:

- Circuit Board Design 1
- Sheet Metal Design 1

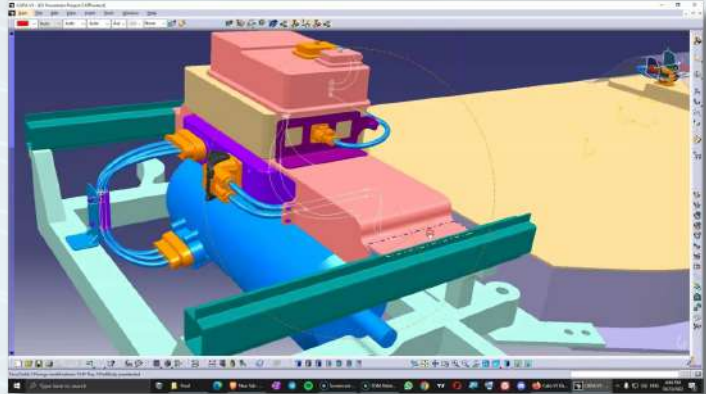


Electrical Wire Harness Flattening - HFX

Electrical Wire Harness Flattening provides automatic and complete flattening of 3D Electrical Harnesses for manufacturing documentation in a concurrent engineering environment.

Module Breakdown:

- Electrical Harness Flattening 2
- Electrical Library 2
- Electrical Wire Routing 2



Electrical Wire Harness Design - WHX

Flexible PCB Design enables modeling of a flexible circuit board within a virtual mock-up and facilitates Electrical Wire Harness Design delivers a process oriented solution for designing physical wire harnesses driven by logical specification and integrated with harness manufacturing. By delivering a realistic simulation for 3D wire harness packaging in an integrated environment, this powerful solution reduces design time and increases the overall quality of large scale electrical systems.with electronic CAD systems.

Module Breakdown:

- **EWR** - Electrical Wire Routing 2
- **ELB** - Electrical Library 2
- **EHI** - Electrical Harness Installation 2

